






# Work Order ID 51931



Wednesday, September 09, 2009 11:37:42 A






Page 1

Item ID: D2741 Accept  Setup Start   
 Revision ID: C Stop   
 Item Name: Blade, 350 Skidtube  
 Start Date: 9/10/2009 Start Qty: 40.00  Cust Item ID:  
 Required Date: 9/25/2009 Req'd Qty: 40.00  Customer:

## Reference:

Approvals: Process Plan: *MP* Date: *09-09* Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2741	Rev C								
100	BAND SAW	0.00							
	Memo	0.00							
Bandsaw	Cut blanks 13.850" long +0.063" -0.000"								
Jeaspa Bandsaw									
110	HAAS CNC VERTICAL MACHINING #1	0.00							
	Memo	0.00							
HAAS 1	1-Machine per folio FA108								
HAAS CNC vertical machine #1									
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
	Memo	0.00							
QC									
Quality Control									

*DJP 09/09/30*

*DJP 09/09/30 / M A 09/10/01*

*DJP 09/09/30*

40

40

40

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Item ID: D2741

Accept



Setup Start



Revision ID: C

Stop



Item Name: Blade, 350 Skidtube

Start Date: 9/10/2009 Start Qty: 40.00



Cust Item ID:

Required Date: 9/25/2009 Req'd Qty: 40.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00

2/ 09/10/03

40



QC

Memo

0.00

Quality Control

140

Small Fab

0.00

SB 09/10/05

40

8



Small Fab

Memo

0.00

Small Fab

1-Deburr 2-Bend per Dwg D2741

150

QC5- Inspect part completeness to step on W/O

0.00

2) 09/10/05

counts  
40



QC

Memo

0.00

Quality Control

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Accept

Revision ID: C

Item Name: Blade, 350 Skidtube

Setup Start

Stop

Start Date: 9/10/2009 Start Qty: 40.00

Required Date: 9/25/2009 Req'd Qty: 40.00

Cust Item ID:

Customer:




Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  Outsource1	Outsource process - Heat Treat	0.00							
	Memo	0.00							
	Outsource process - Heat Treat								
	Issue P/O: <u>10534</u> <input type="checkbox"/> Harden material as per Dwg D2741 <input type="checkbox"/> Min. Ultimate Tensile Strength = 152 ksi (34-40 HRC) <input type="checkbox"/> Min. Yield Tensile Strength = 141 ksi <input type="checkbox"/> Test report or Certification required								
170  Packaging	Receive & Inspect for Damage & Mat'l Certs	0.00							
	Memo	0.00							
	Packaging								
	Ensure Test report or Certification attached								
180  QC	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							
	Quality Control								

M 0910-6

P09/10/15 (40)

27 Ser 10/170

cocuts  
(40) f

# Work Order ID 51931

Wednesday, September 09, 2009 11:37:42 A



Item ID: D2741	Accept		Setup	Start	
Revision ID: C				Stop	
Item Name: Blade, 350 Skidtube					
Start Date: 9/10/2009	Start Qty: 40.00		Cust Item ID:		
Required Date: 9/25/2009	Req'd Qty: 40.00		Customer:		

## Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  Small Fab	Small Fab Memo 1-Pass in deburring machine 2-Grind off edges	0.00 0.00							
200  Powdercoat	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel N112260 Memo START TIME: 9:15am OVEN TEMPERATURE: 9:45am FINISH TIME: 400°F PRESSURE-WASH	0.00 0.00							
210  QC	QC3- Inspect Part Finish Memo	0.00 0.00							
Quality Control									

=> 09/10/21

40

09-10-21

No

**Work Order ID 51931**

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Item ID: D2741

Accept



Setup Start



Revision ID: C

Stop



Item Name: Blade, 350 Skidtube

Start Date: 9/10/2009 Start Qty: 40.00



Cust Item ID:

Required Date: 9/25/2009 Req'd Qty: 40.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	Identify as per dwg & Stock Location: _____	0.00							
	Packaging								
	Memo	0.00							
	Packaging								
230	QC21- Final Inspection - Work Order Release	0.00							
	QC								
	Memo	0.00							
	Quality Control								

9/10/22 400 SP

09/10/23 AJ

R/ 09-10-22

# Picklist Print

Page 1

Wednesday, September 09, 2009 11:37:51 AM

Work Order ID: 51931



Parent Item: D2741RevC



Parent Item Name: Blade, 350 Skidtube

Start Date: 9/10/2009

Required Date: 9/25/2009

Comments:

Start Qty: 40.00

Required Qty: 40.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M4130NB0.500X03.00 0		Purchased	No			100	f	80.7400	48.5937			



4130 Bar 0.500 x 3.00

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

MAT

80.74

- 107935

24

110336

21.54

- 110860

35.2

*DIJ*  
*09/09/30*

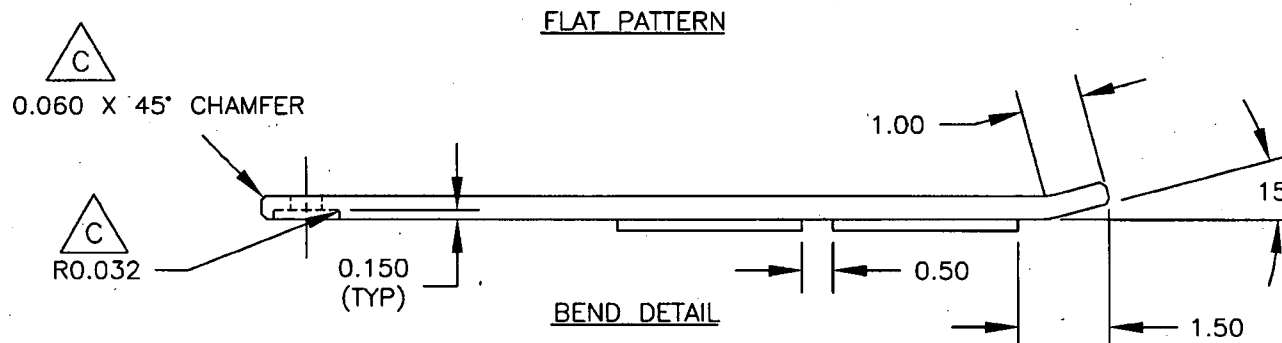
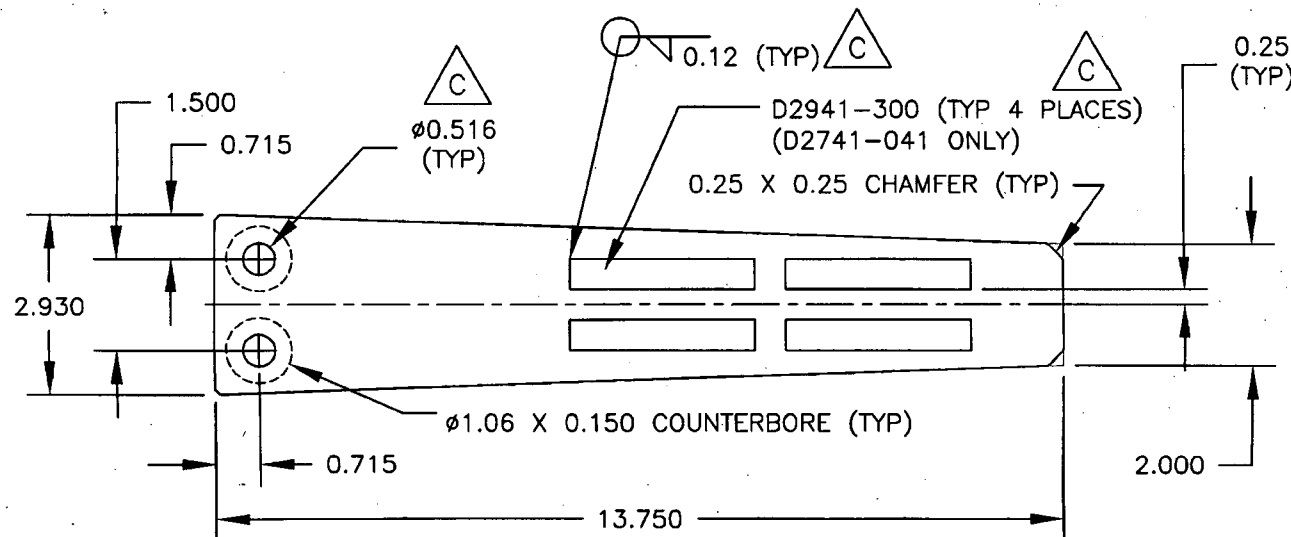
*14' → 10.5" ACRUP*

*35.2 → 11.5" SCRAP*



**DART**

RELEASED  
06 02 07



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 51931

#### D2741 BLADE

- 1) MATERIAL: AISI 4130 STEEL 0.375 THICK  
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)  
MIN. YIELD TENSILE STRENGTH = 141 ksi
- 2) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.030 TO 0.060
- 6) TO MAKE D2741-041, WELD D2941-300 (4) AS SHOWN ABOVE.  
REMOVE POWDER COAT FROM SURFACE OF D2941-300
- 7) TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
04	04	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. C
04	04	D2741	SHEET 1 OF 1
DATE	TITLE	SCALE	
06.01.12	BLADE	1:3	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE C'SINK TO C'BORE	
C	06.01.12	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS	





# Rapport d'inspection

Order	Lot
151802	1

Customer 215  
 DART AEROSPACE  
 1270 ABERDEEN  
 HAWKESBURY

ON K8A 1K7

Shipped To:  
 DART AEROSPACE  
 1270 ABERDEEN  
 HAWKESBURY

ON K8A 1K7

Customer PO / PO du Client	Customer Shipper No.	Material Type / Material	Mat'l Heat Code	Lot Number
10534		4130		

## PROCESSING SPECIFICATIONS

SEL HARDEN  
 HARDEN AND TEMPER  
 SAE AMS 2758/1 REV D

Requirement	Specified	Tests Performed	Test Results
HARDNESS	34 - 40 HRC	40	38 - 40 HRC
TENSILE (KSI)	152 - 182 KSI		171 - 182 KSI

Quantity	Weight	Part Number / Part Description
40	141	D2741 BLADE DWG D2741 REV. C 2 BOITES DE CARTON

S  
6/10/20

## COMMENTS

INSPECTOR:

*[Signature]*



DATE: 2009-10-14

# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ  
ST-EUSTACHE, QC J7R 5A8  
Tel: 450-473-1884 / Fax: 450-491-5498

## Recu de Livraison

Order	Shipper	Shipping Seq.
151802	1	35678

Shipped Complete

Customer **215**

**DART AEROSPACE**  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
Ph: 613-632-5200  
Fax: 613-632-1053

Shipped To:

**DART AEROSPACE**  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
Ph: 613-632-5200  
Fax: 613-632-1053

Purchase Order Number	Customer Shipper No.	Material Type	Order Date	Carrier
10534		4130	2009/10/7	PUROLETTER
Quantity	Part No. / Part Name / Part Description			Pounds
40	D2741 BLADE DWG D2741 REV. C 2 BOITES DE CARTON			141,

Container Type	# Of Containers	Container Comments
BOITE DE CARTON	2	

<b>PACKING</b>	
----------------	--

Quantity Shipped: 40 ✓  
Pounds Shipped: 141,00  
Quantity Remaining: 0  
Pounds Remaining: 0,00

Quantity Shipped: 40

Pounds Shipped: 141,00

Signature:

Date:



# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ  
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

## Certification

Order	Load
151802	1

Customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

Shipped To:

DART AEROSPACE  
1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

Customer PO / PO du Client	Customer Shipper No.	Material Type / Material	Mat'l Heat Code	Lot Number
10534		4130		

### PROCESSING SPECIFICATIONS

SEL HARDEN  
HARDEN AND TEMPER  
SAE AMS 2759/1 REV.D

Requirement	Specified	Tests Performed	Test Results
HARDNESS	34 - 40 HRC	40	38 - 40 HRC
TENSILE (KSI)	152 - 182 KSI		171 - 182 KSI

Quantity	Weight	Part Number / Part Description
40	141	D2741 BLADE DWG D2741 REV. C 2 BOITES DE CARTON

S  
02/01/20

Operation	Specified Temp	Specified Soak Time	Atmosphere	Carbon Potential	Q-Media Q-Temp	Furnace# Load #	Start Date	Time In	Time Out	Date Complete
1.00 CONT. INIT.	LAVAGE		si nécessaire							
2.00 PREPARING	COMPTAGE									
3.00 PREHEAT 1	1000	1:00 1:30	air			133	10-09-09	5:45	6:45	10-09-09
4.00 SEL HARDE	1575	0:40	SEL		BRINE	106	10-09-09	6:45	7:30	10-09-09
5.00 WASH	150	0:30	soap			150	10-09-09	7:50	8:35	10-09-09
6.00 SNAP TEMF	400	2:00	air			638	10-09-09	8:35	10:55	10-09-09
7.00 DIST INSP										



# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ  
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

## Certification

Order	Load
151802	1

Customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

Shipped To:

DART AEROSPACE  
1270 ABERDEEN

HAWKESBURY

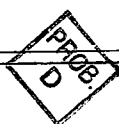
ON K6A 1K7

Operation	Specified Temp	Specified Soak Time	Atmosphere	Carbon Potential	Q-Media Q-Temp	Furnace# Load #	Start Date	Time In	Time Out	Date Complete
8.00 TEMPER	875 +/-10°F	2 hrs	air			635	10-12-09	14:25	17:40	10-12-09
9.00 HARDN INS										
10.00 SANDBLAS			Sablage							
11.00 HUILAGE			huile							
12.00 FINAL INSP										10-14-09

### COMMENTS

APPROVED BY:

*Daniel Gory Pen*



DATE: 2009-10-14

We certify that all the information on this report is exact and in accordance with the order requirements. / Nous certifions que toute l'information comprise sur ce rapport est exacte et conforme aux requis du client.



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO10534

Purchase Order Date 06/10/2009  
PO Print Date 06/10/2009

Page Number 1 of 1

Order From :

VC-MET004

METCOR INC.  
560 BOUL. ARTHUR SAUVE  
SAINT-EUSTACHE, QC J7R 5A8  
CA

**FAKED**  
06-10-4

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	450 473 1884	Requisition Nbr	
Vendor Fax	450 491 5498	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	51931	D2741 Blade	06/10/2009 Yes	40.00	Purolator ground	\$6.2500	\$250.00

Special Inst: Harden Mat. as per DWG D2741 Rev.C  
Min. Ultimate Tensile Strength = 152 ksi (34-  
401 HRC) Min. Yield Tensile Strength = 141  
ksi. Test report or Cert. required

PO Total: \$250.00

CERTIFICATE OF CONFORMITY  
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 06/10/2009

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

